

IN THE CLAIMS

The following listing of claims will replace all prior versions and listings, of claims in this application.

Claim 1 (Currently Amended): A purified citrullinated polypeptide which reacts with rheumatoid arthritis-specific autoantibodies, and is selected from the group consisting of:

- a) a citrullinated α -chain of a mammalian fibrin;
- b) a citrullinated α -chain of a mammalian fibrinogen;
- c) a fragment of at least 5 consecutive amino acids of a) and which also comprises at least one citrulline residue ~~derived from all or part of the sequence of the α chain or of the β -chain of a vertebrate fibrin, by substitution of at least one arginine residue with a citrulline residue.~~

Claim 2 (Cancelled).

Claim 3 (Currently Amended): The citrullinated polypeptide as claimed in claim 1, which is a) and wherein said ~~vertebrate fibrin is a~~ mammalian fibrin, ~~preferably a~~ is human fibrin.

Claim 4 (Cancelled).

Claim 5 (Currently Amended): An antigenic composition for diagnosing the presence of rheumatoid arthritis-specific autoantibodies in a biological sample, ~~characterized in that it contains comprising~~ at least one citrullinated polypeptide as claimed in claim 1, optionally labeled with ~~and/or~~ conjugated to a carrier molecule.

Claim 6 (Currently Amended): A method for detecting rheumatoid arthritis specific autoantibodies in a biological sample, which method ~~is characterized in that it comprises:~~

~~bringing contacting~~ said biological sample ~~into contact with~~ at least one polypeptide as claimed in claim 1, under conditions which allow the formation of an antigen/antibody complex with the rheumatoid arthritis-specific autoantibodies possibly present; and
~~detecting, by any suitable means,~~ the antigen/antibody complex possibly formed.

Claim 7 (Currently Amended): A kit for detecting rheumatoid arthritis-specific autoantibodies in a biological sample, ~~characterized in that it comprises~~ comprising at least one polypeptide as claimed in claim 1, and ~~also~~ buffers and reagents suitable for constituting a reaction medium which allows the formation of an antigen/antibody complex, ~~and/or means for detecting said antigen/antibody complex.~~

Claims 8 and 9 (Cancelled).

Claim 10 (Currently Amended): A pharmaceutical composition, ~~characterized in that it contains, as active principle,~~ comprising at least one citrullinated polypeptide as claimed in claim 1, and a carrier.

Claim 11 (New): The antigenic composition according to claim 5, wherein said citrullinated polypeptide is labeled.

Claim 12 (New): The antigenic composition according to claim 5, wherein said citrullinated polypeptide is conjugated to a carrier molecule.

Claim 13 (New): The purified citrullinated polypeptide according to claim 1, which is
a).

Claim 14 (New): The purified citrullinated polypeptide according to claim 1, which is
b).

Claim 15 (New): The purified citrullinated polypeptide according to claim 1, which is
c).

Claim 16 (New): The antigenic composition according to claim 5, wherein said
citrullinated polypeptide is a).

Claim 17 (New): The antigenic composition according to claim 5, wherein said
citrullinated polypeptide is b).

Claim 18 (New): The antigenic composition according to claim 5, wherein said
citrullinated polypeptide is c).

Claim 19 (New): The method according to claim 6, wherein said citrullinated
polypeptide is a).

Claim 20 (New): The method according to claim 6, wherein said citrullinated
polypeptide is b).

Claim 21 (New): The method according to claim 6, wherein said citrullinated polypeptide is c).

Claim 22 (New): The kit according to claim 7, which further comprises reagents for detecting said antigen/antibody complex.